AMENDMENT UNDER 37 C.F.R. 1.116 - EXPEDITED PROCEDURE

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Title: SUBSTRATES AND SYSTEMS TO MINIMIZE SIGNAL PATH DISCONTINUITIES (As Amended)

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IN THE SPECIFICATION

Please make the paragraph substitutions indicated below. The specific changes incorporated in the substitute paragraphs are shown in the following marked-up versions of the original paragraphs.

The paragraph beginning on page 1, line 19 is amended as follows:

As system frequency increases (e.g., from 533 MHz to 2.5 Gigabits/second) to meet performance demands, the effects of signal path deficiencies become more pervasive. Needed are arrangements to increase minimize signal integrity in the signal paths.

The paragraph beginning on page 8, line 7 is amended as follows:

Discussion turns now to the example dashed arrow path 430 of FIG. 4, such FIG. 4 omitting a number of FIG. 3 items for sake of simplicity/clarity. That is, an example signal may travel from an electrical component (not shown; e.g., motherboard) on which the substrate 110 is mounted, through the conductive bump/balls 160, to a land 370. In the FIG. 4 arrangement, the lands are located along the secondary-side external conductive build-up layer 350Q. The signal may further travel, from the land 370 onto another portion (e.g., a trace) of the secondary-side external conductive build-up layer 350Q, and then along one or more vias 360 on a secondary side of the substrate to travel through each of the layers 340D, 350P, 340C, 320Y, 310, 320X and 340B, to arrive at the layer 350N. The signal path 430 may then travel along a trace within the layer 350N onto another via 360, and from there, onto a portion (e.g., trace, land) of the layer 350M, and then onto the die 120.

The paragraph beginning on page 10, line is amended as follows:

FIG. 5 is a side view 500 similar to that of FIG. 4, but showing an example embodiment of the present invention. This example embodiment provides a differently-arranged substrate